1-[(2-METHOXYETHOXY)METHOXY]-2-PHENYL SULFONYLCYCLOPROPANE

AS $d^3$-REAGENT

BY

SOMCHAI PISUTJAROENPONG

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ABSTRACT

The reaction of the α-sulfonyl carbamion 30 of the corresponding sulfone 29 has been shown to give the alkylated sulfones 31, 32, and 33 in high yields, which were subjected to acid hydrolysis followed by ring-opening to the α,β-unsaturated aldehydes 39. In contrast, hydrolysis of hydroxy-alkylated sulfones 32 or 33, the bicyclic compound 37 and the β,γ-unsaturated aldehyde 38 have been obtained.
A brief study concerning the reaction of the sulfoxide anion $^{49}$ derived from the sulfoxide $^{48}$ has been made. This anion $^{49}$ reacted smoothly with alkylation agent to yield in moderate yield the alkylated products $^{50}$. The synthetic utility of the alkylated products $^{50}$ has been investigated.